第 40 卷 第 3 期 昆 虫 学 报 Vol. 40, No. 3
1997 年 8 月 ACTA ENTOMOLOGICA SINICA Aug., 1997

贵州梵净山棘蝇属三新种*
（双翅目：蝇科）

薛万琦　陈宏伟　崔永胜
（沈阳师范学院昆虫研究所　沈阳　110036）

本文报告了采自中国贵州省梵净山的棘蝇属（*Phaonia* Robineau-Desvoidy, 1830）三新种：瘦角棘蝇 *P. antenniangusta* sp. nov.，梵净山棘蝇 *P. fanjingshana* sp. nov.，侧突棘蝇 *P. laticrassa* sp. nov.。模式标本保存于沈阳师范学院昆虫研究所。

1　瘦角棘蝇 *Phaonia antenniangusta* 新种（图 1～3）

雄虫：体长 5.5 mm。

复眼具密长纤毛；额宽约等于后单眼外缘间距或触角第三节宽的 1.5 倍，下眶鬃 9～10 对，达于单眼三角处，间额黑，宽约为一侧额宽的 2 倍，侧额、侧颜及颊具灰色粉被，侧颜宽约等于触角第三节宽；触角基部黑，第二节端部和第三节黄色，第三节长约为宽的 3.5 倍，芒羽状，最长芒毛长约为触角宽的 1.2 倍；口上片不突出，髭角位于额角之后，颊前上缘具 4 根上倾鬃列，颊高约为眼高的 1/3 强，颊毛及下后头毛均黑；喙短，前颏具粉被，长为高的 2 倍，下颚须棕色，端部黄色，略长于中喙。

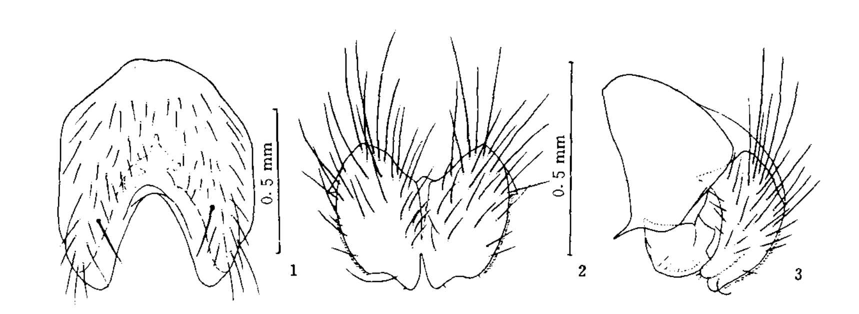


图 1～3　瘦角棘蝇 *Phaonia antenniangusta* sp. nov. ♂
1. 第五腹板腹面；2. 肛尾叶后面；3. 尾器侧面

胸暗黑，具灰色粉被，盾片具不明显的 4 黑条；中鬃 0+1，背中鬃 2+3，翅内鬃0+2，

* 辽宁省教委重点科研基金资助项目

翅前鬃长约为后背侧片鬃长的1.8倍，背侧片具毛，前胸基腹片，前胸侧板中央凹陷、翅侧片下侧片及后气门前肋均裸，腹侧片鬃1∶2；前气门黄色，后气门褐色；小盾不变异色。

翅透明，带棕色；前缘基鳞黑，前缘刺短小，亚前缘脉呈弓把形弯曲，径脉结节背、腹面均裸，r_{4+5}和m_{1+2}脉直，横脉直，附近无暗晕，平衡棒和腋瓣均淡黄色。

足黑色；前足股节具完整的后背和后腹鬃列，端半部具1背鬃列，前足胫节无中位后鬃；中足股节具完整刚毛状的后腹鬃列，中胫后鬃2；后足股节端部具前腹鬃列，无后腹鬃，后足胫节前腹鬃2，前背鬃2，后背鬃1。

腹部近圆形，具均匀的灰至灰棕色粉被，第三、四背板黑色正中条明显，其宽度约等于各自背板长的1/5，第五背板正中条不明显，各背板无闪光斑；第一腹板裸。

雌虫：不详。

正模♂，贵州省梵净山，1 200 m，1993.Ⅸ.6，陈宏伟采。

新种近似于肥角棘蝇 *Phaonia antennicrassa* Xue，1988[1]；但新种触角第三节黄色，下颚须棕色，多数芒毛长超过触角第三节宽；背侧片具毛；后足胫节前背鬃2；腹部各背板的正中条侧缘平行；尾器亦不同。

2 梵净山棘绳 *Phaonia fanjingshana* 新种（图4～7）

雄性：体长8.0 mm。

复眼具参差不齐的疏短纤毛；额宽约为头宽1/13或略宽于触角第三节宽，间额宽为一侧额宽的2倍，下眶鬃7～8对，上升至额上部的2/3，往上部去变细小，无上眶鬃，侧额、侧颜及颊具灰棕色粉被，侧颜宽约为触角第三节宽的3/5；触角黑，第三节长约为第二节长的3倍，芒长羽状，最长芒毛略长于触角第三节宽；口上片不突出，髭角位于额角之后，颊毛黑，颊前上缘具2～3根上倾的鬃，颊高约为眼高的1/5，下后头毛全黄；喙粗短，前颏长为高的2倍，下颚须黑色，长于中喙。

胸暗黑，具灰色粉被，盾片具明显的4黑条，内侧条达于小盾沟；中鬃0+1，背中鬃2+3，翅内鬃0+2，翅前鬃明显长于前背侧片鬃，约为后背侧片鬃长的2.5倍，前胸基腹片、前胸侧板中央凹陷、背侧片、翅侧片、下侧片及后气门前肋均裸，腹侧片鬃1∶2；前气门黄色，后气门黑褐色；小盾全黄，至多在小盾沟附近为褐色。

翅带淡棕色，透明；前缘基鳞棕色，前缘刺短小，亚前缘脉呈弓把形弯曲，径脉结节背、腹面均裸，r_{4+5}和m_{1+2}脉直，m-m横脉中后部内陷，各横脉附近无暗晕，平衡棒和腋瓣均淡黄色。

足除前足股节端部背面、基节和跗节黑色外，余均黄色；前足胫节无中位后鬃；中足股节基半部具1行前鬃列，基半部后腹鬃长于该节横径，从中部往端部去明显短而细，端位前背鬃1，后背鬃3，中胫后鬃3；后足股节前腹和前背鬃列完整，基半部具后腹鬃列，后足胫节前腹鬃4，前背鬃2，后背鬃1；各足爪和爪垫中等，跗节无感觉毛。

腹部圆形；橄榄黑色，各背板具正中狭黑条，第一、二合背板后半部具灰褐色粉被，第三、四背板中部具宽大的近三角形的暗褐色粉被斑，边缘不清楚，背面观第三背板前方两侧具浓厚的蓝灰色粉被，无变色斑，背面观第四背板前侧角具小块蓝灰色粉被，其

内方具变色斑，第五背板粉被暗灰色，正中黑条在前半部短而狭，其两侧略具小块暗褐色粉被斑，各背板的腹侧面和各腹板具均匀浓密的青灰色粉被；第一腹板裸，第二腹板基半部具略密的缨状毛，第二至四腹板后缘分别具 1 对强鬃。

雌性：不详。

正模♂，贵州省梵净山，800 m，1993. Ⅸ. 5，崔永胜采。

新种主要外形特征近似于广东棘蝇 *Phaonia guangdongensis* Xue *et* Liu，1985[2]；但新种雄虫复眼纤毛疏短，参差不齐，额宽于触角第三节宽，颊前上缘具 2～3 根上倾鬃；小盾几乎全黄；后足股节基半部后腹鬃细长；腹部第三、四背板具宽大的近三角形暗褐色斑；侧尾叶后缘和肛尾叶端缘较平直（肛尾叶内侧突有些向内方弯，从后腹面观可见端缘亦不平）等即可区别。

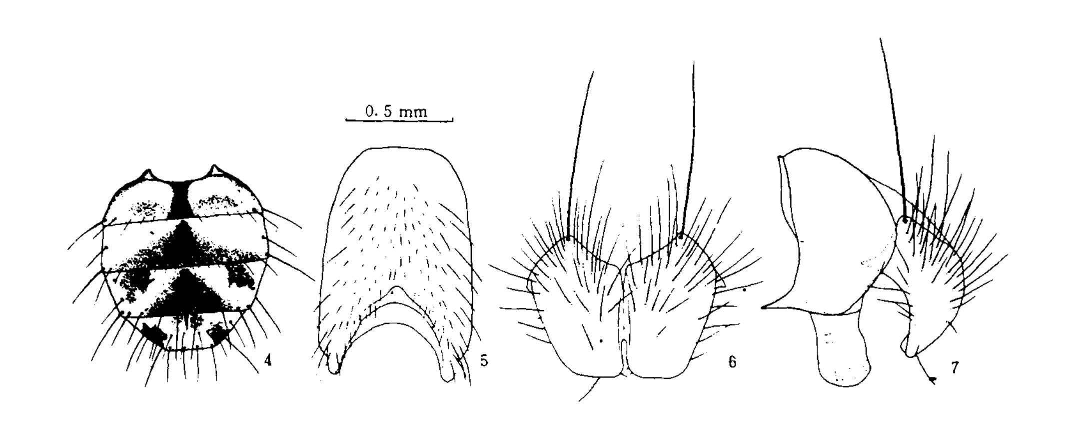


图 4～7　梵净山棘蝇 *Phaonia fanjingshana* sp. nov. ♂

4. 腹部背面；5. 第五腹板腹面；6. 肛尾叶后面；7. 尾器侧面

3　侧突棘蝇 *Phaonia laticrassa* 新种（图 8～11）

雄虫：体长 3.7 mm。

复眼实际裸；额宽约为头宽 1/11 或略宽于触角第三节宽，间额略宽于一侧额，额下半部具 4 对下眶鬃，单眼三角下方具 1 对小的后倾上眶鬃，额、侧颜及颊具簿的灰色粉被，侧颜宽约为触角第三节宽的 3/5；触角黑，第三节长为宽的 4 倍，芒羽状，最长芒毛长约等于触角第三节宽；口上片位于髭角一线上，髭角略在额角之后，颊前上缘具 1 列上倾的鬃，颊高约为眼高的 1/5，颊毛及下后头毛黑色；喙正常，前颏长为高的 3.2 倍，下颚须黑色，约等于前颏长。

胸黑，具灰色粉被，盾片粉被灰棕色，具 4 黑条；中鬃 0+1，背中鬃 2+3，翅内鬃 0+2，翅前鬃至少为后背侧片鬃长的 2 倍，前胸基腹片、前胸侧板中央凹陷、背侧片、翅侧片、下侧片及后气门前肋均裸，腹侧片鬃 1：2；前气门暗棕色，后气门黑褐色；小盾不变异色。

翅淡棕色；前缘基鳞黑棕色，前缘刺明显，亚前缘脉呈弓把形弯曲，径脉结节背、腹面均裸，r_{4+5}和 m_{1+2}脉直，横脉直，附近无暗晕，平衡棒和腋瓣均淡黄色。

足除胫节深棕外，余全黑；前足胫节无中位后鬃；中足股节后腹鬃列完整，往端部去变短，端位前背鬃 1，后背鬃 3，中胫后鬃 2；后足股节前腹、前背和后腹鬃列完整，后足胫节前腹鬃 2，前背鬃 1，后背鬃 1；各足爪和爪垫短小，跗节无感觉毛。

腹部近圆形；具棕色粉被和变色斑，第三背板正中黑色斑为长卵形，其宽度约等于该节长的 1/3，第四背板正中黑条狭，第五背板正中黑条为一线；第一腹板裸，第二至四腹板后端分别具 1 对壮鬃，第三、四腹板稍短，第五腹板较大，其侧叶内侧黄色。

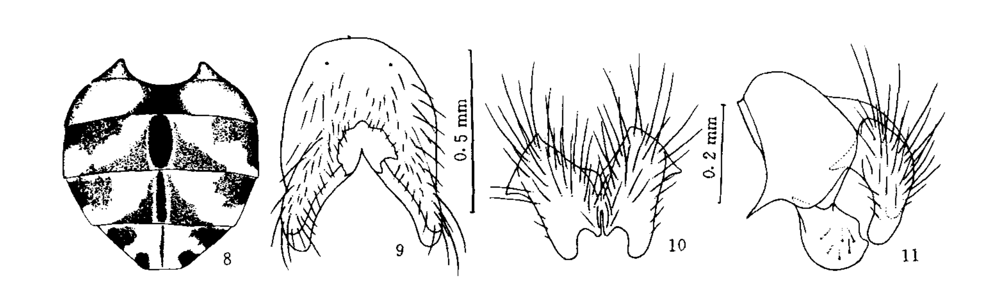


图 8～11 侧突棘蝇 *Phaonia laticrassa* sp. nov. ♂

8. 腹部背面；9. 第五腹板腹面；10. 肛尾叶后面；11. 尾器侧面

雌虫：不详。

正模♂，贵州省梵净山，1 200 m，1993. Ⅸ. 6，陈宏伟采。

新种主要外形特征近似于日本、俄罗斯远东地区分布的 *Phaonia iozen* Shinonaga *et* Kano，1971[3]；但新种雄虫复眼裸，间额存在，稍宽于一侧额，且具 1 对小的上眶鬃，触角第三节为第二节长的 3～3.5 倍；翅前鬃长于前背侧片鬃；股节全黑，后足股节后腹鬃列完整而细长，后足胫节前背鬃 1；腹部第三背板的正中黑斑较宽等即可区别。

参 考 文 献

1 薛万琦. 棘蝇属三新种和三新纪录(双翅目：蝇科). 动物分类学报. 1988，**13**(2)：161～166

2 薛万琦，刘铭泉. 广东省棘蝇属二新种(双翅目：蝇科). 动物学研究，1985，**6**(4)：15～19

3 Shinonaga S，Kano R. Fauna Japonica，Muscidae (Insecta：Diptera)，1971，**1**：165～231

THREE NEW SPECIES OF THE GENUS *PHAONIA* FROM FANJING MOUNTAIN, CHINA (DIPTERA: MUSCIDAE)

Xue Wanqi Chen Hongwei Cui Yongsheng

(*Institute of Entomology, Shenyang Normal College Shenyang* 110034)

Abstract The present paper deals with three new species of the genus *Phaonia* collected from Guizhou Province. Type specimens are deposited in the Institute of Entomology, Shenyang Normal College.

1 *Phaonia antenniangusta* sp. nov. (figs. 1～3)

Male: Body length 5. 5 mm. Eyes densely covered with long ciliae; frons about equal in width to distance between exterior margins of posterior ocelli; 9～10 pairs of inferior orbitals; interfrontalia about twice as wide as parafrontalia; *ac* 0+1; *dc* 2+3; *pra* about 1. 8 times of length of 2nd notopleural bristle; prosternum and beret bare; prostigma yellow; basicosta black; cross veins straight and unclouded; legs black; t_1 without a medial *p* bristle; t_2 with 2 *p* bristles; abdomen somewhat rotundate; Tg3 and Tg4 with distinct black median vittae, about equal in width to 1/5 of lengths of both tergites; all tergites without glitter pattern.

Female: Unknown.

Holotype ♂, Mt. Fanjing (27°55'N, 108°35'E), Guizhou Province, 1200m, Sept. 6, 1993, Chen Hongwei.

This new species is similar to *Phaonia crassa* Xue, 1988, but differs in : 3rd segment of antenna yellow, palpi orange; most of hairs on arista longer than width of 3rd segment of antenna; notopleura with hairs; 2 *ad* bristles on t_3; lateral margins of median vitta of tergites parallel; and different terminalia.

2 *Phaonia fanjingshana* sp. nov. (figs. 4～7)

Male: Body length 8. 0mm. Antennae black; arista long-plumose, longest hairs slightly longer than width of 3rd segment of antenna; gena about equal in height to 1/5 of eye; hairs on metacephalon entirely yellow; *ac* 0+1; *dc* 2+3; *pra* about 2. 5. times as long as 2nd notopleural bristle; prosternum, notopleura and beret bare; prostigma yellow; wings slightly pale orange; radial node bare; near cross-veins unclouded; legs yellow except for distal part black on dorsal surface of f_1, and coxae and tarsi black; t_1 without a medial *p* bristle; t_2 with 3*p* bristles; f_3 with a row of *pv* bristles on the basal half; t_3 with 4 *av*, 2 *ad* and 1 *pd* bristles; abdomen rotundate, olivaceous-black; middle of Tg3 and Tg4 each with

subtriangular wide-large dark brown pollinose spots, margins of spots indistinct; in dorsal view, anterolateral surface of Tg3 with dense bluish-grey pollen, without glinted pattern; anterolateral angle of Tg4 with a small bluish-grey pollinose area in dorsal view, interior surface of which with glinted pattern, first sternite bare; 2nd sternite with dense setaceous fringe on the basal half.

Female: Unknown.

Holotype ♂, Mt Fanjing (27°55'N, 108°35'E), Guizhou Province, 800m, Sept. 5, 1993, Cui Yongsheng.

This new species resembles *Phaonia guangdongensis*, Xue *et* Liu, 1985, but can be differentiated from the latter by as follows: ciliae of eyes sparse, short and uneven; frons wider than 3rd segment of antenna; antero-upper margin of gena with 2 to 3 upcurved setae; scutellum almost wholly yellow; *pv* bristles on basal half of f_3 slender; 3rd and 4th tergites each with larger dark brown subtriangular spots; posterior margin of surstylus and apical margin of cercus fairly even and straight (entopleural process of cercus slightly inflected forward, so apical margin of cercus rather uneven in posteroventral view.)

3 *Phaonia laticrassa* sp. nov. (figs. 8～11)

Male: Body length 3.7 mm. Frons-width about 1/11 of head-width; arista plumose; gena-height about 1/5 of height of eye; thorax black; *ac* 0+1 ; *dc* 2+3; *pra* at least 2 times of length of 2nd notopleural bristle; notopleura, prosternum, hypopleura and beret bare; basicosta dark orange; radial node bare; cross-veins straight and unclouded; legs black except for tibiae dark brown; t_1 without a medial *p* bristle; f_2 with a complete row of *pv* bristles and gradually shortening toward apex of f_2; t_2 with 2*p* bristles; f_3 with complete rows of *av*, *ad* and *pv* bristles; abdomen subrotundate and with glitter pattern.

Female: Unknown.

Holotype ♂, Mt. Fanjing (27°55'N, 108° 35'E), Guizhou Province, 1200m, Sept. 6, 1993, Chen Hongwei.

This new species resembles *Phaonia iozen* Shinonaga *et* Kano, 1977, the latter occurs in the Far East of Russia and Japan, but differs in :eyes bare; interfrontalia present and slightly wider than a parafrontals; with a pair of small superior orbitals; 3rd segment of antenna about 3 to 3.5 times as long as 2nd segment; *pra* slightly longer than anterior notopleural bristle; femora entirely black; *pv* bristles on f_3 thin , long and in a complete row; t_3 with 1 *ad* bristle; black median stripe of Tg3 wider.